

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



7 Ag 4  
1945

# SPRING PLANTING ISSUE

## THE

# AGRICULTURAL

## • SITUATION •

### FEBRUARY 1945

LIBRARY  
CURRENT SERIAL RECORD

FEB 26 1945

U. S. DEPARTMENT OF AGRICULTURE

#### *A Brief Summary of Economic Conditions*

Issued Monthly by the Bureau of Agricultural Economics, United States Department of Agriculture  
Subscription price, 50 cents per year; single copy, 5 cents; foreign price, 70 cents; payable in cash or money  
order to the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

VOLUME 29 - NUMBER 2 - WASHINGTON, D. C.



#### IN THIS ISSUE

	Page
Commodity Reviews.....	2
Another Hard Farm Year Ahead .....	Marvin Jones 9
Farm Price-Support Programs for 1945.....	H. B. Boyd 9
1945 Farm Equipment Supplies.....	Frederic B. Northrup 12
Farm Labor: Problems and Programs.....	George W. Hill 14
Prospective Crop Yields in 1945 .....	John B. Shepard 17
Toward Standardized Cotton Production.....	Horace G. Porter 21
Victory Gardens for 1945 .....	E. G. Moore 22

THROUGHOUT the country farmers are now making their spring planting decisions for another year of top agricultural production. The 1945 goals totaling some 364 million acres, 3 percent above that planted in 1944, will serve as guides, but the final decision rests with each farmer. \* \* \* Total demand for the 1945 output of American farms will continue strong. Food requirements in Europe for military and civilian needs will remain large for many months to come, however favorable the progress of the war. Pacific food requirements will increase as the weeks go by. Despite rationing restrictions, civilian per capita consumption of food—last year 9 percent above pre-war—will continue above pre-war levels. \* \* \* Stocks of many important agricultural commodities are being consumed at a heavier rate than usual, so that by the time the production of 1945 becomes available the Nation's inventory of these commodities may be considerably less than a desirable reserve. \* \* \* If the goals are met and if average weather is assumed, 1945 agricultural production would be, it is now estimated, about a fourth larger than the 1935-39 pre-war average, but 5 to 10 percent below the record output of 1944.

# Commodity Reviews

## LIVESTOCK

MAJOR changes in the Cattle Stabilization Plan, effective January 29, are designed to more effectively control cattle prices and thus protect consumers against any increase in the cost of beef.

The Cattle Stabilization Plan, as inaugurated in late 1943, set an over-all ceiling on cattle prices based upon the cost of cattle slaughtered by individual slaughterers over a monthly period and upon the location of the slaughtering plant. The plan set a price range for each grade of cattle, but allowed slaughterers to pay more than or less than these prices for individual lots or grades of cattle. They could pay more only if the average cost of cattle slaughtered over a monthly period fell within the limits of an over-all minimum and maximum cost range, determined from the liveweight slaughter by grades and the maximum and minimum prices for the individual grades. To effect compliance under the plan, a slaughterer's subsidy payments were reduced if the total cost of cattle slaughtered fell outside the over-all cost range.

The recent changes under the plan set a specific ceiling on all cattle and calves on the basis of \$18 at Chicago. After July 2, 1945, this specific ceiling will become \$17.50. The revised plan also makes it an OPA violation for slaughterers to pay more for cattle than the maximum of the calculated permissible cost range over a monthly period, gives OPA the authority to limit the percentage of Good and Choice cattle that a slaughterer may kill over a monthly period, increases the rate of subsidy payments for Good and Choice cattle, increases the maximum price range for Good and Choice cattle, and adjusts minimum prices for some grades in some areas.

Some of the effects of the revised plan during the next few months are likely to be as follows: Cattle prices may average about the same during the first half of 1945 as in this period of 1944, when cattle costs fell within the limits of the stabilization range. Cattle prices during this period in 1944 did not reach the \$18 ceiling, Chicago basis. Cattle slaughter during the first half of 1945 may be moderately larger than a year earlier. However, supplies of beef were insufficient to meet the demand at ceiling prices and this situation will continue in 1945. Cattle feeders, as in the past year, will tend to feed cattle for a short feeding period and supplies of top fed cattle throughout the year will be relatively small. The strong demand for cattle by slaughterers during the first half of 1945 will tend to hold prices for feeder cattle at a relatively high level, and the number of cattle finished to Choice and Prime grade for market during the last half of the year may tend to be small.

Hog prices may continue at or near the ceilings during the first 9 months of this year. The combined spring and fall pig crop of 1944 totaled 87 million head, 29 percent less than in the previous year. Slaughter for the year 1945 may total 20 to 25 percent less than a year earlier and most of this reduction will occur in the first three quarters of the year. WFA announced an extension of the hog price support program until March 31, 1946, on the basis of \$12.50 at Chicago for Good and Choice butcher hogs. This support price commitment will cover marketings of the 1945 spring pig crop.

The number of sheep and lambs on feed at the beginning of this year was slightly larger than a year earlier. Slaughter of sheep and lambs from January through April probably will total about the same as in the first 4

months of 1944. Lamb prices may average about the same as in this period of 1944.

## FOOD

LAST year civilian food consumption per capita was an all-time record, but is unlikely to continue at this high level in 1945 even though well above the 1935-39 pre-war average.

Meat supplies for civilians this year will fall considerably below the record amount in 1944 of 147 pounds per capita. These supplies may be only 128 to 133 pounds per person which is still above the 126 pound average for 1935-39. Most of the decrease will be in pork, with over-all meat supplies expected to be larger in the late fall following the seasonal increase in slaughter.

The present large egg consumption is expected to continue through 1945, possibly reaching 355 to 360 eggs per person. Chicken supplies will be slightly over 20 pounds per capita, about 2½ pounds less than in 1944.

### Civilian Consumption of Principal Foods, Calendar Years, 1935-39 Average, 1944 and 1945

Food item	Consumption per capita in pounds		
	1935-39 average	1944	1945 preliminary
Red meats	126	147	132
Poultry meats	21	26	24
Eggs <sup>1</sup>	268	349	358
Fluid milk and cream	340	421	420
Cheese	5.5	4.7	4.8
Butter	17	12	11
Fats and oils <sup>2</sup>	31	33	31
Fresh fruits	133	147	142
Processed fruits <sup>3</sup>	25	26	(4)
Fresh vegetables	235	250	238
Processed vegetables <sup>3</sup>	32	34	(4)
Potatoes and sweetpotatoes <sup>5</sup>	153	134	(4)
Sugar	97	88	78
Corn products	39	43	45
Wheat flour	154	160	160
Coffee	14	16	16
Tea	0.7	0.5	0.7
Cocoa	4.4	3.4	3.5

<sup>1</sup> Number, not pounds. <sup>2</sup> Excludes butter.  
<sup>3</sup> Pack year. <sup>4</sup> Figures for 1945 not yet available.  
<sup>5</sup> Crop year.

If military requirements do not increase much over 1944, civilian turkey supplies will be about the same as in the past 2 years.

On a milk equivalent basis, civilian supplies of all dairy products in 1945 will be about the same as in 1943, but a trifle below 1944. Most of the reduction will be in butter. Fluid milk, cream, cheese, condensed milk, and ice cream will be about the same, while civilians may get more cottage cheese, evaporated milk, buttermilk, dried skim milk and chocolate milk.

The civilian supply of all fats and oils will be about 42 pounds per capita in 1945, about 6 percent below last year. Smaller lard and butter production plus large non-civilian requirements are the chief cause.

Market supplies of all fresh and processed fruits and vegetables may be a little less in 1945 than in 1944.

## DAIRY PRODUCTS

PRICES received by dairy farmers for the first half of 1945 will average about the same as a year earlier, because of the little change in wholesale and retail price ceilings. But returns for the first quarter of 1945 will be larger because of higher dairy production payments.

Milk production on farms for 1944 totaled 119.2 billion pounds, almost equal the 1942 record. During the last quarter of 1944, record unit returns and ample feed supplies, plus a long and mild autumn resulted in a milk production at an annual rate of 120 billion pounds. Continuation of this high rate is in prospect for the first part of 1945.

With milk production increasing seasonally from January through June and ahead of the corresponding period of 1944, output of whole milk products, especially evaporated and dried whole milk, will remain at high levels. However, this will probably be accompanied by declines in creamery butter output compared with the previous year.

To fulfill urgent noncivilian needs, 20 percent of the February creamery output and 25 percent of the March production must be set aside for sale to designated governmental agencies. This will reduce civilian supplies mate-

rially during February and March from those available in the same months of 1944. In 1944 the butter set-aside was put into operation on April 1, at which time the set-aside was placed at 10 percent.

### 1945 Agricultural Goals, With Comparisons

Commodity	1935-39 average	1944 actual	1945 goal	1945 goal as percent of—	
				1935-39	1944
<b>Planted acres unless indicated otherwise</b>					
<b>Grain crops:</b>					
Wheat (net planted acres except 1935-39)	73,235	65,454	67,731	92	103
Corn	97,055	98,722	99,098	102	100
Oats	40,586	42,983	44,259	109	103
Barley	13,364	14,300	13,911	104	97
Sorghums (except sirup)	15,029	18,017	17,155	114	95
Rye <sup>1</sup>	3,699	2,254	2,515	68	112
Rice	1,007	1,482	1,405	140	95
<b>Vegetables:</b>					
Fresh market truck <sup>1</sup>	1,745	1,873	1,683	96	90
Process truck	1,479	2,051	2,155	146	105
Dry beans	1,917	2,228	2,277	119	102
Dry peas	281	727	457	163	63
Potatoes	3,123	3,010	3,137	100	104
Sweetpotatoes	804	777	841	105	108
<b>Oil and fiber crops:</b>					
Soybeans for beans <sup>1</sup>	3,042	10,502	10,757	354	102
Peanuts grown alone	2,173	4,012	3,955	182	99
Flaxseed	1,938	3,052	5,000	258	164
Cotton	28,496	20,356	20,507	72	101
Broomcorn	1,317	<sup>1</sup> 380	370	117	97
<b>Sugar crops:</b>					
Sugar beets	892	639	951	107	149
Sugarcane <sup>1</sup>	287	295	337	117	114
<b>Tobacco crops:</b> <sup>1</sup>					
Flue-cured	981	1,007	1,043	106	103
Burley	372	473	503	135	106
Other domestic (except perique)	293	232	258	88	111
<b>Hay and seed crops:</b> <sup>1</sup>					
Tame hay	55,770	59,547	62,862	113	106
Cover crop seeds <sup>2</sup>	120	330	469	291	142
Hay crop seeds <sup>3</sup>	2,737	4,783	4,899	179	102
<b>Total acres (excluding hay seeds)</b>	348,005	354,703	363,635	104	103
<b>Livestock numbers:</b>					
All cattle and calves, Dec. 31	66,814	<sup>1</sup> 79,800	77,306	116	97
Beef cattle, Dec. 31	31,401	<sup>1</sup> 41,300	39,200	125	95
Cattle and calf slaughter (head)	24,710	<sup>1</sup> 33,900	35,000	142	103
Milk cows, average for year	23,548	<sup>1</sup> 26,112	26,363	112	101
Sows to farrow in spring	6,817	9,187	9,569	140	104
Spring pigs saved	41,872	55,428	57,563	137	104
Sheep and lambs, Dec. 31	51,344	<sup>1</sup> 50,000	49,136	96	98
Chickens raised on farms	664,373	<sup>1</sup> 745,800	745,800	112	100
Commercial broilers raised	69,687	<sup>1</sup> 223,000	<sup>1</sup> 223,000	306	100
Turkeys raised	27,006	<sup>1</sup> 35,666	35,666	132	100
<b>Livestock products:</b>					
Milk production (pounds)	103,624,000	<sup>1</sup> 119,200,000	120,582,000	116	102
Egg production (dozens)	3,032,000	<sup>1</sup> 4,790,000	4,350,000	143	91

<sup>1</sup> Harvested acres.

<sup>2</sup> Includes hairy vetch, common and Willamette vetch, Austrian winter peas, crimson clover, and common ryegrass.

<sup>3</sup> Includes alfalfa, red clover, alsike clover, sweet clover, ladino clover, and lespedeza.

<sup>4</sup> Preliminary.

The final agricultural production goals for 1945 represent the total of State goals recommended by farmers, farm leaders, and State agricultural officials. The goals are on a more selective basis than in previous years, with some shifts in the pattern of production to meet changing demand situations.

Total crop acreage of 363,635,000 in the 1945 goals is nearly 3 percent larger than the 1944 planted acreage. For flaxseed, sugar beets, and cover crop seeds, the goals have been materially increased over 1944. Moderate increases over 1944 acreage are asked for dry beans, potatoes, and tobacco. The goals for legume hay seeds and for soybeans are maintained at the record 1944 levels. Recent increases in military needs have resulted in an increase in the pack goals for vegetables for processing.

Livestock goals call for increased milk production, and for a larger slaughter of cattle to meet the increased military and civilian demands for meat. State recommendations called for an increase in the goal for spring pigs and the War Food Administration recently urged farmers to keep more sows for spring farrowing to help meet this goal. Because of recent changes in needs, the 1945 egg goal has been increased over that originally discussed with State leaders; it can be achieved only through normal culling of hen members now on farms.

## TOBACCO

**A**LTHOUGH the over-all consumption of tobacco products is continuing at an exceptionally high rate, it appears to have reached a peak for the war period. While it is likely that after VE-Day, the labor situation and other conditions may permit some further expansion in the production of tobacco products, particularly cigarettes, it seems likely that the over-all demand for tobacco products will decline below present record levels. Among the factors which would tend to cause a decline in demand would be a drop in consumer income, reductions in military personnel, and reduced use of tobacco products in war plants where consumption is unusually high.

Demand for all types of leaf tobacco continues exceptionally strong and prices are at or near the highest level ever received by growers. All major types, except fire-cured and dark air-cured, have been brought under maximum price regulations again this season, and flue-cured and burley have been allocated to manufacturers and dealers in a manner similar to last season.

Total production of all types of tobacco in 1944 is now placed at 1,835 million pounds, nearly one-third larger than the 1943 crop and only 2 percent less than the record crop of 1939. Inventories of leaf tobacco are somewhat below a year ago, but the indicated supply is a little larger than last year.

Although stocks of flue-cured are now higher than in most pre-war years, they, as well as stocks of burley and some of the other types, are low in relation to present rate of disappearance. With domestic consumption tending to level off, little or no further reduction in stocks is anticipated.

The outlook for exports of flue-cured tobacco, though still dominated by war, continues reasonably favorable. The Commodity Credit Corporation purchased approximately 330 million pounds from the 1944 flue-cured crop, most of which are earmarked for export. Exports of dark tobacco are now at a low level although they may increase somewhat as shipping facilities become available and as additional countries are liberated. Increased foreign demand for flue-cured may also follow soon after VE-Day, but total tobacco exports may decline over a longer period of time. Production on the Continent of Europe has increased since the beginning of the war, and as foreign stocks are built up to normal, exports from this country may decline to a relatively low level.

## FATS AND OILS

**A** DECLINE of  $2\frac{1}{2}$  to 3 pounds per capita (roughly 6 percent) in civilian takings of food fats is probable in 1945, chiefly a result of a reduced output of lard and butter, and continued large military and lend-lease

## Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid, interest and taxes	Parity ratio <sup>1</sup>
1935-39 average	107	128	84
1940	100	125	80
1941	124	132	94
1942	159	150	106
1943	192	162	119
1944	195	170	115
1944			
January	196	168	117
February	195	169	115
March	196	169	116
April	196	169	116
May	194	169	115
June	193	170	114
July	192	170	113
August	193	170	114
September	192	170	113
October	194	170	114
November	196	171	115
December	200	171	117
1945			
January	201	172	117

<sup>1</sup> Ratio of prices received by farmers to prices paid, interest and taxes.

requirements. Creamery butter production in recent months has been 6 to 8 percent smaller than a year earlier and probably will continue for a few months, at least, moderately below the level of a year earlier. Also, 20 percent of February creamery butter output and 25 percent of March output will be set aside for Government purchase. In 1944, no set-aside was in effect until April.

Output of lard and rendered pork fat in 1945 is expected to total about 2.4 billion pounds, approximately 850 million pounds less than in 1944. Beginning January 21, packers were required to reserve for Government purchase about 60 percent of the output of federally inspected lard. This will be used to meet military and lend-lease requirements. If exports of lard continue at the high 1944 level, civilian consumption of lard in 1945 may be reduced as much as 1.8 pounds per capita (about 13 percent).

With less butter available, civilian consumption of margarine in 1945 may be somewhat larger than a year earlier, especially in the January-

March quarter. Civilian supplies of shortening and edible oils in 1945 probably will be about the same as in 1944.

The War Food Administrator announced in early January that payments of \$5 will be made to farmers for each acre planted to flaxseed up to the number of acres set for each farmer as his farm goal. The sum of the farm goals in the country probably will be between 5 and 6 million acres, compared with a 1944 planted acreage of slightly over 3 million.

With imports of Argentine flaxseed curtailed in recent months, and with uncertain prospects for resumption of these imports, there will be a tight situation in linseed oil until the 1945 crop of flaxseed reaches crushers. To conserve linseed oil, manufacturers' quotas of oils and fats to be used in civilian paint, varnish, linoleum, and oilcloth recently were reduced from 70 to 60 percent of average use in 1940 and 1941.

Liberation of the Philippines will eventually give the United Nations access to one of the world's major oil and fat producing areas. Before the war, the Philippines exported 750 to 900 million pounds annually of coconut oil and copra, in terms of oil, with about 80 percent going to the United States. Coconut oil is used in the United States mainly for soap—300 to 400 million pounds annually were used by soap manufacturers before the war. However, the chief difficulty in re-establishing trade with the Philippines will be to provide the necessary ocean-shipping space, with a large volume of exports of copra or coconut oil from there not expected for a year or more.

## FEED

DISAPPEARANCE of feed grains for all purposes, and the quantity of wheat and rye fed to livestock was smaller during the October-December quarter of 1944 than in the corresponding quarter of 1943, reflecting the reduced number of livestock in the

country. However, disappearance of feed grains was larger during October–December than the average for that quarter during the 1938–42 period. The quantity of wheat and rye estimated to have been fed during the October–December quarter was materially smaller than a year earlier, but larger for that period than in any other year.

Combined stocks of corn and oats in all positions except interior mills and elevators on January 1 were 8 percent larger than on January 1, 1944, and were the third largest on record for that date. Stocks of barley on farms and at terminal markets on December 1 were 5 percent smaller than a year earlier, and 14 percent smaller than the average for the 1939–42 period.

With relatively abundant supplies available in relation to total requirements, prices received by farmers for corn, oats, and grain sorghums for the 1944–45 marketing season as a whole are expected to average slightly less than in the 1943–44 season. Prices

of barley and hay, on the other hand, probably will average slightly higher. Prices of most byproduct feeds are expected to remain near present levels for the next few months.

The demand for feed concentrates—grain and by-product feeds—is expected to continue strong throughout the 1944–45 feeding season, although not so strong as in either of the two previous seasons. Requirements for livestock feed are smaller this year than in the 1942–43 or 1943–44 seasons because of the reduced numbers of livestock on farms, particularly hogs and chickens. Factors which at least partially offset the reduced demand for concentrates by the smaller livestock population include (1) increased demand for feed grains for industrial and food uses; (2) Government program to stockpile 50 million bushels of corn for use in possible emergencies. In addition, reduced feeding of wheat and rye this year will, in effect, absorb part of the reduced demand from livestock.

### Prices of Farm Products

Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State

	5-year average		January 15, 1944	December 5, 1944	January 15, 1945	Parity price January 15, 1945
	August 1909–July 1914	January 1935–December, 1939				
Wheat (bushel).....	..... dollars.....	0.884	0.837	1.46	1.45	1.46
Corn (bushel).....	..... do.....	.642	.691	1.13	1.06	1.07
Oats (bushel).....	..... do.....	.399	.340	.775	.694	.721
Rice (bushel).....	..... do.....	.813	.742	1.88	1.75	1.75
Cotton (pound).....	..... cents.....	12.4	10.34	20.15	20.85	20.20
Potatoes (bushel).....	..... dollars.....	.697	.717	1.41	1.50	1.58
Hay (ton).....	..... do.....	11.87	8.87	15.70	16.50	17.10
Soybeans (bushel).....	..... do.....	2.96	.954	1.82	2.05	2.06
Peanuts (pound).....	..... cents.....	4.8	3.55	7.19	8.15	8.14
Apples (bushel).....	..... dollars.....	.96	.90	2.73	2.33	2.46
Oranges, on tree, per box.....	..... do.....	41.81	1.11	1.70	2.23	1.98
Hogs (hundredweight).....	..... do.....	7.27	8.38	12.80	13.40	13.80
Beef cattle (hundredweight).....	..... do.....	5.42	6.56	11.20	11.50	11.70
Veal calves (hundredweight).....	..... do.....	6.75	7.80	12.70	12.90	13.20
Lambs (hundredweight).....	..... do.....	5.88	7.79	12.50	12.40	13.00
Butterfat (pound) <sup>5</sup> .....	..... cents.....	26.3	29.1	50.8	51.0	50.9
Milk, wholesale (100 pounds) <sup>6</sup> .....	..... dollars.....	1.60	1.81	13.36	3.39	73.35
Chickens (pound).....	..... cents.....	11.4	14.9	23.9	24.1	24.2
Eggs (dozen).....	..... do.....	21.5	21.7	34.6	44.5	41.0
Wool (pound).....	..... do.....	18.3	23.8	140.4	40.4	40.1

<sup>1</sup> Revised.

<sup>2</sup> Comparable base price, August 1900–July 1914.

<sup>3</sup> Comparable price computed under sec. 3 (b) Price Control Act.

<sup>4</sup> Comparable base price, August 1919–July 1929.

<sup>5</sup> Does not include dairy production payments made directly to farmers by county AAA offices.

<sup>6</sup> Adjusted for seasonability.

<sup>7</sup> Preliminary.

With feed requirements reduced, and corn supplies relatively large, a carry-over of corn nearly double the carry-over at the end of the 1943-44 season is in prospect for the end of the present marketing year. Carry-over of oats next July 1 probably will be moderately larger than a year earlier.

In late 1944 and early 1945 the severe weather, manpower shortages and difficulties in obtaining transportation all combined to restrict the movement of feed grains from surplus-producing areas. In some deficit feed areas, particularly the Northeast, the small in-shipments plus the heavy rate of feeding in recent weeks reduced feed supplies sharply in these areas.

## SUGAR

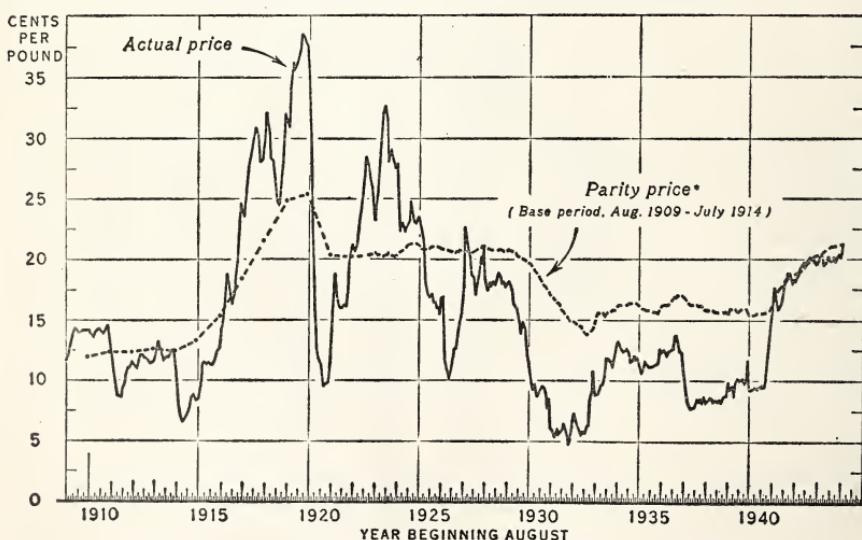
DISTRIBUTION of sugar for civilian and military consumption in continental United States during the calendar year 1944 totaled 7,128,131 short tons (raw value), 13 percent more than in 1943. Except for 1941, this is the largest on record.

Deliveries of sugar for export during 1944 amounted to 311,721 tons—155,133 tons less than in the previous year. Consequently, the total distribution by primary distributors of 7,439,852 tons was only 9 percent larger than the amount distributed in 1943.

Cane sugar refiners supplied three-fourths of the total sugar distributed in 1944 as compared with slightly more than two-thirds in 1943. In contrast, the amount distributed by sugar beet processors decreased from 22 percent of the total in 1943 to 16 percent in 1944.

Increased distribution of sugar in 1944 was accompanied by a substantial reduction in stocks during the year. On December 30, 1944, refiners' stocks of raw and refined sugar (raw value) amounted to only 389,465 tons—46 percent below 1943. During the same period, the stocks held by beet processors declined 11 percent to 746,991 tons. Stocks held by importers and mainland cane mills were also substantially reduced during the year.

COTTON: PRICE RECEIVED BY FARMERS AND PARITY PRICE, UNITED STATES, 1909-44



# ANOTHER HARD FARM YEAR AHEAD

**A**S FARMERS make their plans for the rapidly approaching spring planting season they are faced with their greatest challenge in this our fourth year of war. In spite of increasingly difficult wartime production problems they are being called upon to exceed even their exceptionally high crop acreage of 1944.

Food supplies must be kept flowing in a never-failing stream to fighting fronts over much of the globe—there can be no let-down in food production in 1945. Food must go to war in even greater quantities as our battle lines are extended. Meeting these increased needs will be difficult and every help for farmers that agricultural agencies can provide will be important. The needs are greater as we bend our energies into an all-out war effort.

The task ahead for everyone will be greater than ever in 1945, but farm people have demonstrated that they can do difficult tasks well and I am confident they will find a way to meet our war needs again this year.

MARVIN JONES  
*War Food Administrator*

## Farm Price-Support Programs for 1945

**NOTE:** The support prices summarized here are contingent upon congressional authorization to provide necessary funds. Also, the prices listed are national averages for the year and are not necessarily the prices a given farmer would receive at a given time.

**S**UPPORT prices for needed crops and classes of livestock are an integral part of the war food program of 1945. They assure specified returns and are the farm equivalent of the contract prices with the producers of guns, ammunitions, ships, tanks, airplanes, clothing, and other war materials. Moreover, the relative

levels at which these support prices are established constitute one of the more important devices available to the War Food Administration for encouraging the most desirable pattern of agricultural production.

The chief legislative bases for the support-price program are the Agricultural Adjustment Act of 1938, as supplemented by the act of October 2, 1942, and the so-called Steagall Amendment approved July 1, 1941, as amended October 2, 1942. Prices must be supported for a period extending until 2 years after the January 1 following the date on which the President or Congress proclaim hostilities to have ended.

This legislation requires that the basic crops—corn, cotton, wheat, rice, tobacco, peanuts for nuts—be supported at 90 percent of parity

(92½ percent in the case of cotton) if marketing quotas have not been disapproved, regardless of whether a support at such level is necessary to obtain the needed wartime production. Prices must also be supported at not less than 90 percent of the parity or comparable price for any nonbasic commodity which has been found necessary to substantially expand in production.

Under this legislation lending and purchase operations shall also be carried out to bring prices and incomes of producers of nonbasic commodities not covered to a fair parity relationship with other commodities—to the extent funds are available and producers are able to bring supplies in line with demand.

Because prices generally must be supported at about 90 percent of parity, it is necessary to establish support prices for some of the more urgently needed commodities at levels considerably above parity in order to assure prices attractive enough to obtain the necessary shifts in production.

So far, an expanded production has been asked for hogs, eggs, chickens (excluding chickens weighing less than 3 pounds live weight and all broilers) turkeys, milk and butterfat, designated varieties of dry peas, designated varieties of dry beans, soybeans for oil, flaxseed for oil, peanuts for oil, potatoes, cured sweetpotatoes, and American-Egyptian cotton.

#### **Other Commodities Included**

In addition to the commodities for which support prices have been formally proclaimed under the Steagall Amendment or for which loans are specifically required by legislation, support prices or loans are proposed for 1945 for a number of other commodities, including sugar beets, sugarcane, rye, barley, grain sorghums, vegetables for canning, and a number of grass and legume seeds.

Support-price programs are carried out through purchase of commodities for military, lend-lease, and other governmental uses, including purchases for the school lunch program, and other distribution programs; or through loans, purchases, and other operations conducted by the Commodity Credit Corporation.

In general, the support prices for livestock and livestock products extend through December 31, 1945, while the support prices for crops grown and harvested in 1945 extend through June 30, 1946. In the case of hogs, however, support prices have been announced for the period ending March 31, 1946, in order to assure returns from the spring pig crop of 1945.

#### **How Prices are Supported**

The method used in supporting prices and the levels they are to be supported are indicated in the following summaries of the various commodities covered in the price-supporting programs.

**Wheat, corn, cotton, American-Egyptian cotton, rice, tobacco.**—Loans at 90 percent of parity (92½ percent in the case of cotton) will be made available to farmers.

**Peanuts.**—Peanuts produced in 1945 will be supported at base prices to farmers of \$160 per ton for Spanish, Virginia and Valencia types and \$145 per ton for Runner types. The War Food Administration, the only authorized buyer of 1945 crop peanuts, will enter into price supporting contracts with shellers, crushers and producer cooperative associations under which they will agree to purchase peanuts from farmers for the account of the Administration at not less than the support prices.

**Soybeans.**—Prices will be supported at \$2.04 a bushel for the basic grade of designated types delivered to country elevators or other normal delivery points. Nonrecourse loans will be made available to producers at support prices, and WFA will also offer to

purchase at support prices and to enter into price supporting contracts with processors.

**Flaxseed.**—Loans at announced support prices will be made available to farmers. Announced support prices for No. 1 grade at selected points include \$3 per bushel delivered to processor's plant in car lots at Minneapolis, Minn., and Portland, Oreg.; \$2.85 at Emporia, and Fredonia, Kans.; \$2.80 at Corpus Christi, Tex.; and \$3.20 per bushel at Los Angeles and San Francisco, Calif.

To meet the greatly expanded flaxseed goal for 1945, production payments of \$5 per acre will also be made to growers for each acre planted to flaxseed up to the acreage set as a farm goal.

**Dry edible beans and peas.**—Certain designated types of dry edible beans and peas will be supported by means of purchases in carlots, cleaned and bagged, f. o. b. country shipping point. Price supporting contracts will be offered country shippers. Purchase prices of U. S. No. 1 grade beans range from \$8 per hundredweight for Red Kidney beans to \$5.75 per hundredweight for pinto beans. Purchase prices of designated varieties of dry edible peas, smooth type, are generally \$4.50 per hundred pounds for U. S. No. 1 grade.

In addition, loans will be made available to farmers on thresher-run beans of certain types at a rate of \$5.50 per hundred pounds for U. S. No. 1 grade (pinto beans, \$4.50).

**Potatoes and sweetpotatoes.**—Potatoes will be supported at levels calculated to reflect 90 percent of parity by means of purchases of early and intermediate potatoes and loans on late potatoes and cured sweetpotatoes. Support prices on white potatoes will apply only to potatoes which will grade U. S. No. 1 or U. S. Commercial containing not less than 80 percent U. S. No. 1 quality. Specific support price schedules will be announced at a later date.

**Hogs.**—During the period ending March 31, 1946, hogs will be supported at not less than 90 percent of parity, and in no event less than previously designated prices. For Chicago this price is \$12.50 for good choice butcher hogs weighing 200 to 240 pounds. Support operations will be carried out by purchase of federally inspected pork products at prices that will enable packers to pay support prices.

**Milk and butterfat.**—Announcement has been made of production payments through the end of March 1945. The payment rates on whole milk deliveries vary by regions from 60 to 90 cents a hundredweight. The payment rate on butterfat is 10 cents per pound for all areas. Similar payments are planned for the balance of the year but with lower rates during the spring and summer.

**Eggs.**—WFA will support prices to farmers for candled eggs at 27 cents a dozen, and, where candling facilities are not available, current receipts will be supported at 24 cents a dozen. In addition, purchase operations of dried and frozen eggs and of high grade shell eggs for export will be conducted.

**Chickens and turkeys.**—Chickens with certain exceptions and turkeys will be supported at 90 percent of the parity price. The exceptions are all broilers and other chickens weighing less than 3½ pounds live weight.

**Wool.**—The WFA will offer to purchase wool of the 1945 domestic clip delivered to warehouses or customary assembly point, at present ceiling prices less specified marketing charges. Purchases will be made through established dealers.

**Sugar beets.**—Price support operations, including payments to growers by means of price supporting contracts with processors, calculated to return to growers an average of \$12.50 a ton for sugar beets, will be conducted.

**Louisiana and Florida sugarcane.**—WFA will make payments to growers, through processors, amounting to ap-

proximately \$1.60 per ton of sugar-cane.

**Rye, barley, and grain sorghums.**—Loans will be made available to farmers at approximately 75 cents per bushel for rye; 80 cents per bushel for barley; and \$1.65 per hundred pounds for grain sorghums of acceptable grades.

**Vegetables for canning.**—Prices to farmers for snap beans, sweet corn, green peas, and tomatoes, grown for canning will be supported through price supporting contracts with certified canners. The 1945 support prices on a national basis will be the same as in 1944 for tomatoes, corn,

and green peas, but \$6 a ton less for snap beans. On a national average the 1945 support prices are as follows: Tomatoes, \$25.25 a ton; sweet corn, \$18 a ton; green peas, \$83.50 a ton; snap beans, \$85 a ton.

**Winter cover crop seeds; hay and pasture seeds.**—Price support operations will be conducted for certain winter cover crop seeds, and hay and pasture seeds. Support operations for the former group will consist largely of purchases of cleaned seed at specified prices, and for the latter group of loans to farmers.

H. B. BOYD, *Director  
Office of Price, WFA*

## 1945 Farm Equipment Supplies

**A**MERICAN farmers are planning another year of top agricultural production despite increasing difficulties in producing new farm machinery and other equipment due to urgent military requirements. Every effort is being directed to obtain the necessary priorities and manpower ratings—to the extent possible under present military needs—to complete the various farm machinery production programs.

The situation is tight. Large-scale improvement is impossible, due to emphasis on military production. Although production of new machines will add to the total inventory of some modern labor-saving machines and also permit the essential replacement of some implements on some farms, there will not be enough of any new machines to justify replacement of any machinery which can be made to serve another season.

Current machinery production schedules are somewhat smaller than last year's total production, which included some production authorized under the previous year's program. However, if current production sched-

ules are met, the new machinery available for use in the crop year of 1945 would just about equal the amount available for use in 1944. (This includes some which were made too late for use in 1944 and will be used this year for the first time.)

Unfortunately, production is running behind schedule. At the time the final crop production goals were determined, the lag amounted to around 25 percent, not counting repair parts, attachments, and wheel tractors. Production of wheel tractors was about on schedule, though the total authorized for this year is smaller than last year's actual production. Efforts are being made to get the production of other machinery up to schedule, but shortages of various materials and manpower in the plants presents many difficulties which may not be entirely solved as long as direct military requirements remain at present high levels.

Production of repair parts is expected to be very large again this year. There was a record supply last year, and the Government continued the policy of encouraging production by

authorizing materials without quota restrictions. Spot shortages of some parts for some of the older machines will not be avoidable. In general, however, farmers can expect to have enough parts to keep existing machines in operation, especially if they continue to check the machines before the season of use and if they practice good maintenance.

Trucks and truck tires will also require the most careful conservation. Both will be scarce, although some light trucks will be made available to farmers for the first time in the war. Farm transportation problems probably will reach a new peak.

If the effects of the weather and the manpower situation could be foretold with certainty, farmers would have a much better idea as to whether available equipment will suffice. Without that foreknowledge, the situation can be judged only on the basis of experience and current information.

#### Facts to Consider

Some of the facts to consider are these.

Farmers in 1945 have more machinery and equipment in total than ever before, including more units of horsepower. Some of this equipment is becoming less and less efficient and would normally have been replaced before now. However, it went a long way last year in many places to help overcome the effects of extremely unfavorable planting weather. This does not prove that additional equipment is not needed but it does prove that not every tight squeeze spells disaster.

The 1945 acreage goals aggregate only 3 percent larger than last year's total planted acreage. Increases are called for in flaxseed, sugar beets, cover crop seeds, dry beans, potatoes and tobacco, but each of these crops has been produced on a larger scale in the past than the goal calls for this year.

Considered in relation to the fact that the 1945 goals were determined in each State by people familiar with

#### 1944 and 1945 Production of Important Farm Equipment for Domestic Use

Equipment groups	1944 <sup>1</sup> percent of 1940 output	1945 <sup>2</sup> percent of 1940 output
Tractors for farm use-----	85	70
Tillage, planting, cultivating, fertilizing, spraying equipment-----	90	100
Harvesting and haying equipment-----	155	145
Wagons and nonmotor trucks-----	100	90
Dairy, poultry, barn equipment-----	120	115
Pumps-----	100	100

<sup>1</sup> Actual total production in year beginning July 1, 1943.

<sup>2</sup> Scheduled production in year beginning July 1, 1944.

local conditions, this indicates that specialized equipment for these crops is fairly adequate. In the areas where both flaxseed and wheat are grown, more large-scale machinery is needed. In the sugar beet areas, the shortage of manpower will press heavily on available equipment. Each area will have particular problems, aggravated or relieved by the weather. In the past it has sometimes been possible to get approval for supplemental farm machinery programs after the regular program has been approved and after new problems have arisen. This year, however, supplemental programs submitted by the War Food Administration have not been approved because of their competition with large military requirements which have first call on supplies of material and manpower.

#### Prospects for Other Supplies

As to other farm production supplies:

1. Rotenone, pyrethrum, and nicotine will be in short supply. It will be necessary again to substitute one chemical for another in the protection of crops against pests. Vigilance for infestations and prompt use of control measures are especially recommended.

2. Fertilizer supplies, in total, will about equal those of last year, but there will be a smaller tonnage of approved grades with a high nitrogen

content and a smaller tonnage of superphosphate for direct applications. Approved grades high in potash should be more abundant.

3. Textiles used in production will be in short supply.

4. Conservation and reuse provide the only hope of having enough wood-

en containers and agricultural bags. Farmers are urged to sell unneeded used bags to local dealers. Growers of crops marketed in wooden containers should place orders early for second hand containers.

FREDERIC B. NORTHRUP, *Director  
Office of Materials and Facilities, WFA*

## Farm Labor: Problems and Programs

AS THE American farmer closed the books on 1944—a year in which he achieved an all-time high in combined crop and livestock production with the smallest work force on record—he found himself challenged to “do it again” in 1945 in the face of a further manpower drain.

### Byrnes Announcement

Early in January this year, Justice Byrnes, the War Mobilization Director, announced it would be necessary to induct at least a portion of the 364,000 occupationally deferred farm men in the age group 18 through 25 to meet the manpower requirements of the armed forces. Justice Byrnes, in a letter to the National Selective Service Director which he made public, said President Roosevelt had found “that the further deferment of all men now deferred in the 18 through 25 age group because of agricultural occupation is not as essential to the best interests of our war effort as is the urgent and more essential need of the Army and Navy for young men. The President feels in view of existing conditions, agriculture, like our other war industries can, with few exceptions, be carried on by those in the older age groups.”

Carrying out this directive, the Selective Service Director asked the Nation's draft boards to call up the men in this group for pre-induction physical examinations and review their deferments. In view of the Tydings Amendment to the Selective Service Act, just how many of these young farm operators and full-time workers

will be taken for the armed forces as a result of this review cannot now be estimated with any accuracy. Selective Service officials expect that at least 40 percent will not pass the physical. That has been their experience with other men in this age range. As for those who do, certainly a substantial number still warrant agricultural deferment.

### Effect Not Critical

The Tydings Amendment provides that any registrant found by his local board to be necessary to and regularly engaged in an agricultural occupation or endeavor essential to the war effort shall be deferred until such time as a satisfactory replacement can be obtained. It is agreed by all concerned that if a farmer is not contributing in a substantial way to agricultural production, or if he can satisfactorily be replaced, then he should not have occupational deferment. The War Food Administrator no doubt had this point in mind when he told Justice Byrnes that the induction of the younger farmers and farm hands, *who do not clearly fall within the scope of the Tydings Amendment*, should not result in a critical condition so far as food and fiber production is concerned.

It is felt that agriculture should not undergo any further wholesale loss of manpower if the 1944 level of agricultural production is to be sustained or increased. The farm population has decreased since 1940 by nearly 5 million, or 16 percent. About 1,200,000 farm men—operators and workers—have gone into the armed services.

This number increases to 1,650,000 with the inclusion of young men who, prior to entering the services, were living on farms but working at non-agricultural occupations or attending school. In addition, about 2,500,000 men and women have transferred from farms to industry during the war.

According to employment estimates of the Bureau of Agricultural Economics, the average annual farm employment for 1944 was 10,037,000, compared with 10,585,000 for 1940, a reduction of 5 percent. In a breakdown of these estimates, BAE shows that operators and unpaid family workers in 1944 averaged 7,810,000, 3 percent under the 1940 average, while the average of 2,227,000 for hired workers last year was 13 percent below the 1940 average.

### War Impact Severe

The war's impact on the farm work force has been severe from a qualitative as well as quantitative standpoint. Along with the numerical decline there has been a loss of stamina and skill as a result of the drastic change in the composition of the labor supply. Male operators and workers who have left agriculture for the armed services or industry have had to be replaced largely by women, youth, and retired men returning to active farm life for the emergency. They have not, for the most part, had the stamina and skill of the men whose places they took.

Yet output per worker in agriculture has increased. The various factors accounting for this have been (1) generally favorable weather conditions; (2) built-up plant energy resulting from a decade of soil conservation which has contributed to larger yields; (3) greater use of improved varieties of seed, high analysis fertilizers, and other more effective methods of cultivation; (4) increased mechanization—there are 29 percent more mechanical corn pickers, 23 percent more combine harvesters, 49 percent more milking machines on farms today than in December

1941; (5) longer hours of work; (6) greater diligence by the farmer in planning his work and supervising the labor provided him through the emergency farm labor program; (7) the rapid and intelligent shifting of farm workers, made possible by the emergency farm labor program, from one crop area to another as new needs develop, thus drastically reducing time lost by hired workers seeking jobs; (8) the stimulation to production of farm prices which were 15 percent above parity in 1944 and of farm wages which were 150 percent higher in 1944 than in 1940.

It all added up to an increase in output per worker last year of 28 percent over 1940 and 45 percent over the 1935-39 average.

The principal increases in labor requirements necessitated by the 1945 goals are in sugar beets, sugarcane, tobacco, flaxseed, truck crops for processing, potatoes, and cover crop seeds. Except for flaxseed, these crops require large amounts of hand labor in planting, cultivating and harvesting operations. The increase in sugar-beet acreage alone will require 25,000 additional able-bodied workers, and sugar-beet production is confined almost wholly to labor deficit areas.

Acreage increases in sugarcane, tobacco and truck crops for processing called for in the goals will require 786,000, 4,700,000 and 1,350,000 additional man-days, respectively.

### Early Victory Little Help

Even an early termination of the war in Europe would not ease materially the farm labor situation this year. Because of the many problems involved in demobilization, and the need for experienced troops in the Pacific theater, not many men could be returned from the armed forces to the farms in time to help with the 1945 crop. Industry's manpower requirements are expected to remain high throughout the year. Partial reconversion of war industries in 1945 would make some workers available to agriculture, but in limited numbers only.

The experiences of the First World War are conclusive in their indication of a tight labor market continuing in agriculture even after the war. As late as August 12, 1920, the Department of Labor, analyzing the agricultural labor problem at that time and considering the further importation of Mexican Nationals, observed:

"It is a generally accepted fact that upon the signing of the armistice and returning to this country of the vast army sent abroad and its demobilization, the men demobilized did not generally return to the vocations in which they were engaged at the time they were called upon to perform military service. In fact, the authorities claim that there has been a general reluctance upon the part of farm laborers to return to the farm."

### Intensive Local Recruiting

Going into the 1945 season, all facts concerning the farm manpower outlook point to the need for recruiting of labor locally by State and county extension service personnel on a more intensive scale even than last year, and supplementing local labor supplies where necessary with foreign workers, prisoners of war, and American farm workers able and willing to travel at their own expense or at the employers' or Government's expense.

The State Extension Services reported that through 12,000 local farm placement offices, 3,000,000 different individual workers were placed on farm jobs during 1944. Thousands of other workers, stimulated to seek farm jobs as a result of United States Crop Corps appeals through the press and radio, made their own arrangements with farmers.

The United States Crop Corps goal for 1945 is for the recruitment of 4,-

000,000 people, mainly women and youth, to assist the regular farm work force on a full- or part-time basis. This goal is the same as last year.

### More Foreign Workers

Just as more foreign workers were required to meet labor needs in 1944 than in 1943, the trend will continue in 1945. Last year the War Food Administration's Office of Labor supplied a total of 107,636 foreign workers, including the 23,046 who were in the country at the start of the year, and transported 11,322 workers of this country interstate. The largest number of foreign workers employed at any one time was 94,649, which was at the height of the work season last fall. They consisted of 67,860 Mexicans, 17,437 Jamaicans, 5,653 Bahamians, 908 Barbadians, 1,301 Newfoundlanders, and 1,490 Canadians. Foreign and interstate workers were supplied to 41 States.

In 1945 the Office of Labor plans to supply a somewhat larger number of foreign workers. At the peak of the season it expects to have 105,500 available—75,000 Mexicans, 24,000 Jamacians and 6,500 Bahamians. Interstate transportation of workers will also have to be increased.

The War Department estimates that it can make available to agriculture throughout 1945 prisoners of war in about the same numbers as were employed on farm jobs in the fall of 1944. This means that about 50,000 prisoners of war will be available for relatively long periods of employment and can be increased to about 75,000 for short periods for harvest of perishable crops.

GEORGE W. HILL  
Office of Labor, WFA

INDEX—A limited number of copies of the index of the articles appearing in the *Agricultural Situation* during 1944 are available from the Bureau of Agricultural Economics, Washington 25, D. C.

# Prospective Crop Yields in 1945

CROP yields per acre in 1944 were 9 percent higher than in any previous year except 1942, an exceptionally favorable season, and were nearly 33 percent above the 1923-32 pre-drought period. After allowing for the weather, crop yields have been increasing at the rate of nearly 1 percent a year for the past 20 years. If this trend continues in post-war years farmers will need to plan either for larger market outlets or for fewer acres. Hence the problem of future yields is of major importance to farmers everywhere.

## Factors Affecting Yields

Yields of crops not yet planted cannot be accurately forecast because future weather is not known. But it is possible to separate out some of the factors that have determined crop yields in past years and figure what yields per acre may be expected either during a period of years or in individual years when weather is about as favorable for crops as the average of past seasons. For the 1945 season allowance can also be made for such recent developments as (1) the excellent start of the winter wheat sown last fall, (2) the above-average reserve of subsoil moisture in most of the western half of the country except the Pacific Northwest, (3) the near-record supply of fertilizers being produced, (4) the cumulative effects of the heavy applications of lime in the East and Northeast, (5) the large acreage that will be planted to hybrid corn and to improved varieties of oats, wheat, soybeans, potatoes, sugar cane, sugar beets, beans, and other crops, (6) a continuation of the wartime tendency toward close utilization of the most productive land, and (7) price supports which go far toward offsetting the shortage of labor and encourage the complete harvesting of the crops produced.

A crop-by-crop allowance for the effects of these factors as well as weather

er indicate that with average growing conditions during 1945, the average of crop yields should be nearly 26 percent higher than during the 1923-32 pre-drought period. To average that high, yields would need to be higher than those in any past years except 1942 and 1944. These prospects will, of course, change from month to month as the season advances.

During the past 35 years weather during the growing period has caused the aggregate of crop yields per acre harvested to differ an average of about 6 percent from what would have seemed fair appraisals of prospects at the beginning of each season. Prospects for individual crops and for local areas have changed much more than this, but until the widespread droughts of the 1930-39 decade, weather was not often seriously unfavorable for more than a few crops in any one season. Furthermore, until the present war period, weather very favorable for high yields tended to so reduce prices that the harvesting of some crops was incomplete, with damaged hay, nubbins, small potatoes and apples and even some scrap cotton being left in the fields.

This year moisture reserves, price stability, liberal use of fertilizers, and organized assistance to help farmers meet critical situations combine to reduce somewhat the danger of severe crop reverses but it would still be best to be prepared for about the usual variation in crop prospects as the season advances.

## Yields Increasing Steadily

The reasonableness of forecasts made at this season can best be judged by reviewing prospects for each part of the country and for each crop in comparison with past years. All such analyses, however, should be accepted with certain reservations for, although each year brings a new combination of weather conditions, it is possible to judge what to expect only from what

has happened in the limited number of years with adequate records. In allowing for variations in the weather of past years it becomes apparent that during the last 20 years crop yields per acre have been rising at the rate of nearly 1 percent per year. Excluding the particularly rapid increases in yields of fruits and cotton, yields are now about 13 percent higher than they were in comparable seasons 20 years ago. Wartime prices and conditions are accentuating this upward trend regardless of the weather, and in addition, yields in the last few years have been helped by favorable weather.

### Great Plains States

The effects of variation in the rainfall on national crop yields have been most important in the Great Plains States. This is a group of 10 States extending from North Dakota and Montana southward through Texas and New Mexico. In these States, which have 40 percent of the national acreage, crop yields in past years have been roughly proportional to a "moisture supply" measured by rainfall during a "crop year" extending from the previous September through August, plus some allowance for variation in the amount of subsoil moisture carried over from one season to the next and for the adverse effect of hot weather during the summer months. In the last few years there have been signs that the increased use of hybrid corn, rust resistant wheats and other factors may have helped to cause the recent increases in yields, but the exact extent is uncertain because these States, as a group, seem to have had more rain during the last 4 crop years than in any previous 4-year period during the last half century.

In the Plains States the effects of drought and of wet weather tend to be cumulative. Ordinarily 3 inches of extra rainfall in one crop year helps crops of the following season about as much as one extra inch of current rainfall. Moisture remaining in the soil and subsoil from the abundant rainfall

of 1944 and other recent years raises prospects for 1945 at least 5 percent, and possibly 6 or 8 percent, over what they would otherwise be. Allowing for the effects of hybrid corn and other recent developments, aggregate crop yields 12 percent above the 1923-32 average would seem about what should be expected with usual weather.

For rough calculations it may be assumed that aggregate crop prospects in this area will rise or fall about 4 percent for each inch that the rainfall in the area after January 1 is above or below normal. Within limits, cool weather during the summer is usually beneficial, the gain from summer temperatures that average 1° below normal being about as great as those from an extra inch of rain, with corresponding damage from hot weather. Yields of individual crops depend much more on the distribution of the rainfall. Present moisture reserves appear particularly important for small grains and hay. Corn and sorghums will need rain later in the season. Cotton has rules of its own, being benefited by adequate moisture in the western parts of the Cotton Belt and easily hurt by too much rain farther east.

### Other States

In the northern States east of the Great Plains and also in the 7 States west of the Rockies assuming average weather, composite yields of field crops should about equal those of 1944, but in individual States yields may differ materially from those of 1944. Parts of the Ohio Valley suffered considerably from the summer drought last year, but the weather was better than average in Wisconsin and west of the Mississippi River. In the far West prospects now appear favorable in California and the Southwest but in Washington, Oregon, and parts of Idaho there is a growing fear of reduced yields unless precipitation after January 1 is enough above normal to restore depleted reserves of soil moisture and improve water prospects for irrigation. In the South, east of

Texas and Oklahoma, the item of major importance is the prospect that the quantity of fertilizer used will continue at a record, or near-record level. There seems no reason to expect the yields of cotton and small grains to approach the exceptionally high yields of last season, but, with average weather, yields of most other field crops should show some improvement over 1944.

### Crop-by-Crop Appraisal

A more accurate appraisal of prospects this season can be made by reviewing the record for each crop separately. By using the reported condition of each crop at harvest time, it is possible to adjust the yields each year to show what they would have been with average weather. The year-to-year changes due to such developments as hybrid corn, liberal use of fertilizers, and shifts to irrigated land or high-yielding areas can then be seen. This method shows that under present conditions the trend of crop yields is strongly upward.

Now that most of the high-yielding corn areas have shifted almost entirely to the use of hybrid seed and the South has stepped up the quantity of fertilizer used, the most probable yield of corn in the United States in 1945 appears to be about 32 bushels per acre, which would be above the yield in any season from 1866 through 1941. With an acreage equal to that harvested in 1944 such a yield would result in a near-

record crop of more than 3 billion bushels.

With the December estimates of winter wheat indicating a large acreage, prospects for light abandonment and a yield of 16.7 bushels per acre harvested, and with favorable subsoil moisture in most of the spring wheat sections except nonirrigated lands in the Pacific Northwest, it seems reasonable to expect another billion bushel wheat crop and a yield per acre of about 16 bushels for all wheat.

Some varieties of oats have been giving wonderful yields in Northern States and new winter oats have been successful in the South. As a result the United States average yield of oats in 1944 was nearly 30 bushels even though planting was seriously delayed in some of the principal producing States. Pending further information regarding acreage changes, the 1945 yield seems likely to be about 32 bushels. Barley prospects continue unchanged at about 23 bushels.

### Good Hay Yield

The yield of hay seems to be rising. In the Great Plains States both tame and wild hay crops should have a good early start. In the Northern States farther east the yield of hay crops has been rising for many years, chiefly because of a shift towards the heavier yielding kinds. Yields should be given a further boost by the huge quantities of lime applied in the last few years, but will continue to depend largely on

Past and 1945 Prospective Crop Yields per Harvested Acre, U. S. Average

	All corn	All wheat	Oats	Barley	Tame hay	Cotton	Soy-beans	Dry beans	Pota-toes	To-bacco	28 crops (percent of 1923-32 average) <sup>1</sup>
1880-99-----	Bu.	Bu.	Bu.	Bu.	Tons	Lb.	Bu.	Lb.	Bu.	Lb.	Pct.
1890-19-----	25.9	13.4	27.5	23.7	1.25	182	-----	-----	82.5	732	-----
1900-19-----	26.6	14.3	29.9	23.2	1.31	185	-----	-----	96	818	-----
1920-29-----	26.8	14.0	29.7	22.7	1.31	162	-----	665	111	772	100.6
1930-36-----	21.4	13.1	26.1	19.9	1.19	187	14.6	729	108	806	94.2
1937-41-----	28.9	14.6	31.6	23.3	1.39	246	18.7	917	126	941	117.7
1942-----	35.2	19.8	35.6	25.5	1.53	272	18.7	987	137	1,023	136.2
1943-----	32.1	16.6	29.6	21.9	1.43	254	18.1	870	140	966	124.1
1944-----	33.2	18.2	29.9	23.0	1.41	295	18.4	784	130	1,072	132.7
Prospective 1945 <sup>2</sup> -----	32.0	16.1	32.0	23.0	1.40	265	18.4	855	133	1,010	125.9

<sup>1</sup> Crops included in the average, in addition to the 10 listed in the table, are sorghums for grain, rye, flaxseed, rice, wild hay, peanuts, sweetpotatoes, sugar beets, apples, 3 citrus fruits as a group, and 6 other fruits as a group.

<sup>2</sup> Indications in January 1945. Actual yields can be expected to be higher or lower to the extent that subsequent weather conditions are more favorable or less favorable than average.

adequate moisture during the spring and summer months. In the South the large acreage of peanut vines saved for hay in the last few years has tended to reduce the average yield of hay per acre even though the total tonnage has been high. When prospects for all States are lined up, a hay yield per acre nearly equal to last year's 1.41 tons seems probable.

The yield of cotton last year, according to the December estimates, was 295 pounds per acre or 23 pounds higher than in any previous year. With plantings limited to the more productive land, a "good season in the ground" in Texas and Oklahoma, prospects for near-record fertilizer applications farther east, and continued improvement in methods of production it seems best to prepare for a yield of about 265 pounds this year. This would be above the yield in any year prior to 1937.

Tobacco will continue to be well fertilized in 1945 and a yield of 1,010 pounds, about the average during the last 5 years, seems about what should be expected even though this yield was never reached prior to 1940.

#### **Big Potato Yield**

Potato yields have been rising about a bushel per year for 50 years and the present trend seems even more strongly upward. Productive new varieties are being planted more and the certified seed supply of record volume is sufficient to plant about 70 percent of the acreage. The tendency is toward liberal fertilization and further concentration of the acreage in the high-yielding commercial areas. The most probable yield would seem to be about 133 bushels although that mark has been exceeded only twice. Methods of growing sweetpotatoes have been improved in some commercial areas but the bulk of the crop is still grown in small patches and there seems no reason to expect any material departure from the usual average of about 87 bushels.

Such shifts of soybean acreage as now seem probable are mostly toward the high-yielding States and a yield about the same as that of 1944 seems probable. Wartime efforts to increase the production of beans and peanuts have resulted in increased acreages in some areas where average yields are less than half the national average. Preliminary estimates of the probable distribution of the acreage this season indicate the most probable yield to be 855 pounds of beans and 675 pounds of peanuts.

Yields of flaxseed and rice have been less seriously affected by acreage shifts but 8.2 bushels of flaxseed and 48 bushels of rice would seem all that should be expected.

#### **Lower Sorghum Yield**

Sorghums harvested for grain yielded nearly 20 bushels per acre in 1944 and have averaged 18 bushels during the last 4 years even though the acreage has been nearly doubled since 1939. Allowing for the probability of less abundant rainfall a somewhat lower yield should be expected this season.

In 1944 apples, other deciduous tree and vine fruits as a group, and citrus fruits gave record, or near-record, production per acre of trees in bearing. The tendency of some varieties of apples to bear heavily in alternate years will probably reduce production of apples this year, but most commercial orchards, vineyards and groves are being well taken care of. Barring unusual losses from freezes and hurricanes, this year's yields per acre of these three groups should average nearly as high as in 1944 and more than 40 percent higher than in the base years 1923-32.

Putting these yields together in proportion to the relative importance of these crops during the 1923-32 or predrought period, they show that 1945 yields are likely to average about a fourth higher than during that decade. But more than 40 percent of

the total expected gain results from the big change in the yield of cotton and 27 percent from improvement in corn. Yields of small grains and hay crops are expected to show general, but moderate, increases that account

for about 12 percent of the total gain. Fruits account for about 10 percent of the gain and tobacco and potatoes each about 4 percent.

JOHN B. SHEPARD  
*Bureau of Agricultural Economics*

## Toward Standardized Cotton Production

THIS year nearly a fourth of the Nation's cotton farmers, who operate about a half of the total cotton acreage, will be members of organized groups known as one-variety cotton communities. These farmers will plant only the varieties of cotton seed best adapted to their localities and thus standardize production through the use of pure seed as essential to quality improvement. A further prerequisite of uniform quality cotton production is that the farmers in a given area patronize a gin which gins no other variety of cotton as a means of avoiding mixed seed and lint.

Among the far-reaching results of the standardization of cotton production on a community basis are the following: (1) In a far shorter time

NOTE.—This report is based largely on the investigations of C. B. Doyle and others of the Bureau of Plant Industry, Soils and Agricultural Engineering.

than formerly, the seed of any new variety found to have superior qualities can be multiplied sufficiently to meet the demand for it. Furthermore, large supplies of pure seed of the older varieties of cotton are always available in one-variety communities. (2) Experience has shown that improvements in culture, harvesting, ginning, and marketing are more easily and effectively applied where production is on a one-variety basis. (3) Cotton manufacturers are recognizing to an increasing extent the greater uniformity and superior quality of cotton from one-variety communities, and many mills regularly buy cotton from communities which can supply them with sizeable lots of cotton of specific varieties.

By way of further summing up the achievements of the one-variety community work, the Assistant Research Administrator of the Department of

### Cotton Growing in Standardized One-Variety Communities, United States, 1935-43

Year	Counties participating <sup>1</sup>		Com-munities participating	Grower members	Acres of adopted variety		Production of adopted variety	
	Actual	Percent of all cotton counties			Actual	Percent of U. S. total	Actual	Percent of U. S. total
1935-----	Number	Percent	Number	1,000	1,000	Percent	1,000	Percent
1935-----	161	19	331	-----	788	3	571	5
1936-----	234	28	511	-----	1,470	5	1,112	9
1937-----	312	38	730	-----	2,453	7	1,883	10
1938-----	425	53	1,056	-----	2,284	9	1,445	12
1939-----	495	62	1,516	132	2,987	12	1,656	14
1940-----	548	70	1,922	185	4,518	18	2,742	22
1941-----	550	71	2,116	229	6,239	27	3,367	32
1942-----	577	75	2,564	292	7,614	33	4,570	37
1943-----	569	77	2,544	306	8,869	40	4,771	43

<sup>1</sup> Counties containing one or more standardized one-variety communities.

Agriculture, in testifying before a Congressional Committee in early December, said: "The one-variety communities using recently developed varieties of superior quality are probably producing the best cotton in the world. Standardizing our entire production on a few of our best varieties is a logical future step."

The possibilities of one-variety production were first demonstrated in the irrigated valleys of the Southwestern States with American-Egyptian and Upland cottons. California has gone further than any other State by enacting a law in 1925 which restricts the planting in specified areas to a single variety. In 1931 the Bureau of Plant Industry, Soils, and Agricultural Engineering, in cooperation with the State Extension Services and other State and Federal agencies, inaugurated a one-variety program in all principal States of the main Cotton Belt.

Now beginning its fifteenth year of operation, the one-variety program has been outstandingly successful, with its growth from year-to-year consistent

though not spectacular. Consequently, in 1943 there were a total of 2,544 standardized one-variety communities in 77 percent of the cotton-producing counties of the country with a cooperating membership of about 306,000 growers. The acreage planted to the approved varieties on these farms was 40 percent of the total acreage and 43 percent of the total production for the entire country.

The extra cash return received by the growers in the one-variety communities in 1943 from larger yields and premiums for improved quality of staple has been estimated by the Bureau of Plant Industry, Soils, and Agricultural Engineering at nearly \$7.50 an acre over and above what they would have received if they had continued to plant the inferior varieties formerly grown. This represents a total additional income for the one-variety farmers of more than 66 million dollars in that single year.

HORACE G. PORTER  
*Bureau of Agricultural Economics*

## Victory Gardens for 1945

FOR the last 3 years the people of the United States have made a remarkable record of food production in their back-yard and community Victory gardens. It now seems certain that this production will be needed again in 1945.

A few months ago there was some question in the minds of many concerning the need for a Nation-wide Victory garden program this year. That was before the big push by the Germans. It is now possible to see more clearly the importance of home gardens in relation to our total food needs. For instance, based on present allocations, civilians will have to get along with about 10 to 15 percent less

commercially canned vegetables than a year ago. Half the canned vegetables available to United States civilians from now until the 1945 pack is ready will have to come from home-canned supplies. With no immediate end of the war in sight, the War Food Administration is suggesting that everyone who had a garden last year stay on the job.

Victory gardening has appealed to many people for many reasons. Perhaps the greatest appeal has been the satisfaction that comes from a feeling of direct participation in the country's war food production program. Victory gardening has been called war work, and it is. But aside from this,

many people will faithfully tend their gardens this year because they have learned from experience how many blue points they can save. Others will garden because they like the taste of vegetables when they are garden fresh. Still others will garden for the simple reason that they like it.

The best estimate of the number of home gardens in 1944 is 18½ million. This estimate was provided by a survey made by the Bureau of Agricultural Economics in September and October. Private polls estimated about 19½ million gardens for 1943, and about 16½ million gardens for 1942. Although no accurate statistics are available on production, it has been estimated that 40 percent of the vegetables grown for fresh consumption last year came from home gardens. This, of course, includes farm gardens.

#### Garden Equipment Outlook

In general the outlook is good for Victory-garden equipment this year. Weather was favorable last year in areas where vegetable seeds are grown commercially and yields were good. In spite of the ample supplies of seed, gardeners are being advised to place their orders early because the shortage of help in seed stores makes it impossible to fill orders promptly if too many people wait until planting time.

Victory gardeners should have little difficulty in getting fertilizers this year. The same grades used last year in various parts of the country will be sold again this year. For the Atlantic Seaboard the formula will be 5-10-5; the central part of the country will be 4-12-4; and for the Mountain and Pacific States it will be 6-10-4.

The latest word on insecticides is that supplies will be about the same as a year ago. Rotenone, one of the most popular garden insecticides used for dusting, will be available in about the same quantity. Those who buy early will get the rotenone. Those who wait until the insects are already at work in the gardens may have to use cryolite instead.

The situation on tools hasn't changed materially from last year. Most of the stores will have only the victory models. For small gardens few tools are needed. But those who have to buy new tools should be able to find them, although they may have to shop around a bit.

#### Getting More From Gardens

Most of the gardeners this year will have had at least two years of experience. They can be expected, therefore, to do a better job in choosing a site, preparing the ground, and taking care of the garden generally. For the last 2 years many gardens throughout the eastern and central parts of the country were badly damaged by drought. This year more effort will be made to locate gardens close to water supplies, and where this is impossible, more attention will be given to building up the supply of organic matter in the soil and to the use of mulches. Both practices help to carry a garden through a drought.

Garden veterans will also do a better job of fighting weeds and controlling insects. They have learned—sometimes against their own judgment—that most garden crops simply have to be thinned. Although a few have learned the art of keeping the garden planted throughout the growing season, the great majority have not yet learned this lesson. Over most of the country good fall gardens are the exception rather than the rule.

Plans for carrying on the Victory garden program in 1945 will be much the same as in the last 2 years. To promote gardening national advertisers will again donate space in newspapers and magazines as well as time on the radio. A kit of garden information aids has been sent to each of 7,500 community garden leaders throughout the country. State and county extension workers will continue to give much of their time in assisting gardeners and home canners.

E. G. MOORE, *Manager  
Victory Garden Program*

## Economic Trends Affecting Agriculture

Year and month	Industrial production (1935-39 =100) <sup>1</sup>	Income of industrial workers (1935-39 =100) <sup>2</sup>	1910-14=100				Index of prices received by farmers (August 1909-July 1914=100)			
			Prices paid by farmers		Farm wage rates	Livestock and products				
			Wholesale prices of all commodities <sup>3</sup>	Commodities		Dairy products	Poultry and eggs	Meat animals	All live stock	
1935	87	86	117	125	130	103	114	116	116	115
1936	103	100	118	124	127	111	125	114	118	120
1937	113	117	126	131	133	126	130	110	132	127
1938	89	91	115	123	126	125	114	108	115	113
1939	109	105	113	121	124	123	110	95	112	108
1940	125	119	115	122	125	126	119	96	111	112
1941	162	169	127	131	132	154	139	121	146	140
1942	199	238	144	152	150	201	162	151	188	173
1943	239	305	151	167	162	264	193	190	209	200
1944	235		152	176	170	315	198	174	200	194
1944—January	243	319	151	174	168	275	201	177	194	193
February	244	321	151	175	169	—	201	168	199	194
March	241	318	152	175	169	—	199	162	203	194
April	239	313	152	175	169	292	196	151	203	191
May	237	313	152	175	169	—	194	153	201	190
June	235	313	152	176	170	—	192	154	200	189
July	231	306	152	176	170	328	194	165	197	190
August	232	310	152	176	170	—	196	171	201	194
September	231	307	152	176	170	—	198	179	200	196
October	232	306	152	176	170	325	201	190	201	199
November	232	304	152	177	171	—	203	207	200	202
December	232		153	178	171	—	203	211	198	202
1945—January			179	172	324	202	199	203	202	

Year and month	Index of prices received by farmers (August 1909-July 1914=100)								All crops and live stock	Parity ratio <sup>4</sup>		
	Crops											
	Food grains	Feed grains and hay	Tobacco	Cotton	Oil bearing crops	Fruit	Truck crops	All crops				
1935	97	107	174	94	120	82	119	102	109	84		
1936	108	102	165	95	112	92	104	107	114	90		
1937	120	125	204	90	120	104	110	115	122	92		
1938	75	71	176	67	88	70	88	80	97	77		
1939	72	69	155	70	90	68	91	80	95	77		
1940	84	82	136	77	96	73	111	88	100	80		
1941	97	89	159	107	130	85	129	106	124	94		
1942	120	111	252	149	172	114	163	142	159	106		
1943	148	147	325	160	190	179	245	183	192	119		
1944	165	166	354	164	209	215	212	194	195	115		
1944—January	170	168	350	162	203	204	267	199	196	117		
February	170	169	348	161	205	206	247	196	195	115		
March	169	171	351	161	207	215	242	198	196	116		
April	171	172	352	163	207	237	220	200	196	116		
May	170	173	350	160	208	232	225	198	194	115		
June	165	170	350	163	210	228	231	197	193	114		
July	161	168	350	164	209	230	195	194	192	113		
August	156	166	355	162	209	214	186	191	193	114		
September	155	162	358	170	207	206	166	188	192	113		
October	164	161	357	171	211	205	153	187	194	114		
November	165	157	368	168	215	195	188	189	196	115		
December	167	160	364	168	215	206	228	196	200	117		
1945—January	169	163	365	163	214	205	262	200	201	117		

<sup>1</sup> Federal Reserve Board, adjusted for seasonal variation, revised November 1943.

<sup>2</sup> Total income, adjusted for seasonal variation, revised March 1943.

<sup>3</sup> Bureau of Labor Statistics.

<sup>4</sup> Ratio of prices received by farmers to prices paid, interest and taxes.

NOTE.—The index numbers of industrial production and of industrial workers' income, shown above, are not comparable in several respects. The production index includes only mining and manufacturing; the income index also includes transportation. The production index is intended to measure volume, whereas the income index is affected by wage rates as well as by time worked. There is usually a time lag between changes in volume of production and workers' income since output can be increased or decreased to some extent without much change in the number of workers.